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ABSTRACT

This booklet is for use by administrators, project directors, and teachers who need information on how to determine if a planned instructional program is actually implemented. A format for mounting an instructional program through the use of performance objectives is described, with details of how variables such as organization, content, method, and facilities should be used to bring about the accomplishment of the performance objectives. A list of procedures outlines how this monitoring system can be effectively implemented in a given system. Three general procedures and six individual instructor procedures are specified in sequential order. (MBM)

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A Format For Monitoring The Teaching-Learning Process

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Foreword

This booklet is intended to be used by administrators, project directors, teachers, or any other educator who is interested in obtaining information that can be used to determine if what is *planned* as an instructional program is *actually* implemented. This, of course, must be carried out if educational accountability is to be accomplished.

The content of the booklet describes a format for monitoring an instructional program through the use of performance objectives and specifying how variables such as organization, content, method, and facilities are going to be used to bring about the accomplishment of these performance objectives.

In addition, a list of procedures is outlined describing how one could effectively implement this monitoring system in his own given educational situation.

Preface

Many of the ideas incorporated into this booklet were developed and implemented through a cooperative effort with the staff of John Davidson Elementary School, located in the Vallejo City Unified School District, Vallejo, California.

EPIC Diversified Systems would like to express its sincere appreciation for the opportunity of working with such a motivated and interested staff in terms of being "accountable" for their instructional program.

Specifically, the following should receive individual recognition for much of the content of this booklet:

Mr. Doug Stellner, Principal
John Davidson Elementary School

Mr. John Carter, Teacher
John Davidson Elementary School

Dr. Guillermo Lopez, Associate Superintendent
Vallejo City Unified School District

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Introduction

Educators are faced with undertaking the tremendous task of answering the call for accountability. "Accountability" poses the questions: (1) what is desired with respect to behavioral changes in children as a result of participating in an instructional program, and (2) how effective is the instructional program in bringing about these behavioral changes?

Basically, three *tasks* must be completed in order for accountability to occur:

1. Specification of the desired student performance.
2. Establishment of procedures to monitor and audit the instructional program which will be implemented to bring about the expected student performance.
3. Publication of a report relating student performance to the implemented instructional program.

A first task is to state the desired student performance that will take place in a given period of time. Usually, this student performance is specified in the form of a performance objective and the period of time is usually geared to the school year and/or semester. A performance objective should contain the following six elements.[1]

1. Who is going to perform the specified behavior.
2. The behavior that is expected to occur.
3. The situation in which the behavior will be observed.
4. How the behavior is going to be measured.

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[1] Robert J. Armstrong *et al. Developing and Writing Behavioral Objectives*. Tucson, Arizona: Educational Innovators Press, 1970.

5. The expected proficiency level.
6. The time needed to bring about the behavior.

Below is an example of a performance objective containing the six elements:

> By the end of the school year, all first grade students will demonstrate their ability to apply mathematical concepts as measured by an average 1.5 grade level increase on the CTBS.

Given the appropriate type of in-service training, behavioral objectives containing the above elements can be developed and stated by educators. These objectives fulfill the first task of bringing about accountability.

The second task, "establishing procedures for monitoring and auditing," the instructional program, to be implemented in order to bring about the desired behavioral changes has been ignored in the past.

Consequently, many invalid conclusions have been drawn in the past about the effectiveness of various instructional programs due to the fact that what was actually implemented is different from what was originally planned.

An example of a planned program that was different from the actual program occurred a number of years ago when EPIC Diversified Systems was evaluating a sixteen-week teacher in-service program.

The in-service program dealt with the training of a group of teachers in the use of a selected set of counseling and guidance techniques. It was hypothesized that if the teachers internalized the content of the in-service program, they would change their behavior in the classroom in order to (1) increase their recognition of student feelings, (2) increase their use of praise and encouragement, (3) increase their use of student ideas, and (4) decrease their use of criticism. The counselors who were conducting the in-service program specified that they *planned* to spend four weeks on each of the above behaviors for a total of sixteen weeks. Since this program occurred before monitoring became an integral part of the evaluation process, no monitoring procedures were specified for the sixteen weeks of in-service.

Prior to the in-service training, the teachers were observed in their classrooms and statistics were compiled with regard to their use of these four behaviors. At the completion of the in-service, the teachers were again observed and again statistics were compiled on their use of the four behaviors to determine if any changes had taken place.

When the results of the classroom observations were evaluated, it was determined that a significant increase had taken place in the teachers' recognition of student feelings, but there were no changes in the other three teacher behaviors. Therefore, it was concluded that the in-service program was successful in bringing about only one of the desired changes.

However, sometime after the evaluation report had been published, it was discovered that the counselors had *actually* implemented an in-service program where they spent fourteen weeks training the teachers in counseling techniques on recognizing student feelings and two weeks on the other three behaviors. At this point, the results of the in-service began to make sense and appeared to be what one would expect. But, it should be noted that some invalid conclusions were originally drawn.

Therefore, when one attempts to relate the degree of attainment of a behavioral objective to the instructional program, an almost impossible task exists if no monitoring of the program has been conducted.

The task of establishing monitoring procedures must be completed in order for accountability to take place. This booklet will outline a set of monitoring procedures which can be used by educators to accomplish this task.

Establishing a Monitoring System

These procedures will provide detailed information which will (1) define what a given group of students actually experiences in terms of an instructional program, and (2) provide insights as to what changes are needed in the instructional program to bring about an increased attainment of a given set of objectives.

To establish a sound monitoring system, all the variables that interact within an instructional program should be periodically observed and described. A suggested format for a basic monitoring system is illustrated in Figure 1.

The format provides space for statements of the objectives that will be monitored during a predetermined time interval such as a weekly or monthly basis. These objectives are what might be called "interim performance objectives" because they indicate various behavioral changes which are desired on the part of the learner. If these interim behavioral changes are achieved, it would lead to the accomplishment of the behavioral change(s) specified in the overall performance objective (task #1, accountability).

Figure 2 shows an example of what one teacher might plan and implement in terms of interim performance objectives during the first week of school in working toward the following overall performance objective (task #1, accountability).

> By June 1971, those first grade students who have completed the total school year 1970–71 will show on the average a 1.5 grade level increase in read-

(Front Side)

Figure 1

MONITORING SYSTEM FORMAT

INTERIM PERFORMANCE OBJECTIVES

Time Interval: _____ Grade _____

Teacher _____

Date _____

Objectives:

_____

_____

(Back Side)

PLANNED PROGRAM

Institutional Variables		Instructional Variables			
		Organization	Content	Method	Facilities
	Teacher				
	Administrator				
	Educational Specialist				
	Family				

ACTUAL PROGRAM

Institutional Variables		Instructional Variables			
		Organization	Content	Method	Facilities
	Teacher				
	Administrator				
	Educational Specialist				
	Family				

Objectives Completed: ___ Objectives *NOT* Completed: ___

Objective No. _____ Revised: New No. _____

Comments:

_____

_____

ing between pre/post administrations of the Stanford Achievement Test.

When an instructional program is monitored, it is necessary to state performance objectives that specify the end products of the instructional program, and it is also necessary to specify what is expected in terms of learner behavior during the implementation of the instructional program. Not only is the "end product" defined (performance objective), but also the "path" or means of getting there is described (interim performance objectives).

The reverse side of the format provides space where (1) the planned program can be described according to organization, content, method, and facilities,[2] (2) a description of what was actually implemented, which in many instances could be different from that originally planned, and (3) who is responsible. This type of monitoring system will provide information about discrepancies that might exist between planned and actual programs.

Before the procedures for using the monitoring system are outlined, it might be helpful to the reader if the variables of the system are defined.

Students may be described in a variety of ways. When developing educational programs, it is essential that the characteristics be thoroughly described (i.e., age, sex, achievement level, etc.).

The *teacher* variable in an educational program can be described in terms of grade level taught, highest degree held, number of years experience, etc.

The *administrator* is described as the person usually responsible for the educational program (i.e., superintendent, principal, director).

The *educational specialist* is described as a person who performs a role unique only to a particular instructional setting (i.e., a curriculum coordinator, special teacher, etc.).

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[2] *A Scheme for Evaluation and An Organizational Structure of Variables.* Tucson, Arizona: Educational Innovators Press, 1970, pp. 22–25.

Figure 2

MONITORING SYSTEM

Time Interval *Weekly*

Grade *First*
Teacher *Smith*
Date *September 11, 1971*

INTERIM PERFORMANCE OBJECTIVES

1. *At the end of five school days, first grade students will demonstrate their knowledge of handedness (left-right) on the average of 90% of the time as measured by teacher observation during the playing of the game, "Simon Says."*

2. *At the end of five school days, first grade students will demonstrate knowledge of upper and lower case letters of the alphabet as indicated by a minimum average score of 90% on a teacher-constructed alphabet test.*

3. *At the end of five school days, first grade students will demonstrate their knowledge of "larger" and "smaller" by correctly answering 90% of the teacher's questions posed during the use of the EDL readiness materials.*

4. *At the end of ten school days, first grade students will demonstrate their knowledge of initial and final consonants of "wh," "th," "sh," "ch," initial sounds and "sh" and "ch" final sounds by achieving a minimum average score of 90% on the appropriate SRA Word Games Test.*

5. *At the end of twenty-one school days, first grade students will demonstrate their knowledge of vocabulary found in the first Primary Primer by achieving a minimum average score of 90% on a teacher-made test.*

The *family* variable refers to the parents or legal guardian of the child, and includes brothers and sisters.

The *organization* variable refers to the manner and time in which students are organized for learning (i.e., self-contained classroom, departmentalized, non-graded, etc.).

The *content* variable is defined as a body of knowledge topically described (i.e., algebra, American problems, reading).

The *method* variable can be described as:

(1) Teaching activities (i.e., lecture demonstration)

(2) Types of interaction (i.e., teacher-student, student-student)

(3) Learning principles or theories (i.e., operant conditioning)

Figure 3 illustrates what might have been *planned* and what was *actually* implemented for the objectives in Figure 2.

If this monitoring system is to be used effectively, some general procedures should be followed. These procedures are listed in sequential order.

General Procedures of Monitoring

Step 1. Specify the overall performance objectives to be accomplished through a given educational program. The performance objectives would complete the first task for accountability (see pages 1 and 2 for accountability tasks).

Step 2. Specify the time interval for monitoring. The instructors that are involved in the instructional program should agree on the interval of time that will pass between monitoring points. In most instances, the monitoring period would probably be weekly or bi-weekly.

Step 3. Select a person to be responsible for keeping a record of each instructor's sheets for each monitoring point. This person's responsibility would be to make

Figure 3

PLANNED PROGRAM

		Instructional Variables			
		Organization	Content	Method	Facilities
Institutional Variables	Teacher	*15 minutes per day per group with 10 students in each group (obj. 1-3)* *15 minutes per day — total class (obj. 4 and 5)*	*Johnny Goes to School* *Word Games 1-9* *The Adventure*	*Lecture (obj. 1-5)* *Small group Individual Reading ques.-ans. (obj. 1-3)* *Total Group — ques.-ans. (obj. 4-5)* *Individual work using workbooks (obj. 2-5)*	*EDL Workbooks* *SRA Workbooks* *Primary Primer books* *Film — "How to Play Simon Says"*
	Administrator				
	Educational Specialist				
	Family				

Figure 3

ACTUAL PROGRAM

		Instructional Variables			
		Organization	Content	Method	Facilities
Institutional Variables	Teacher	*30 minutes per day per group of 10 students — three groups (obj. 1-3)* *15 minutes per day total class (obj.4 & 5)*	*Same*	*Same*	*Same, except the film was not used*
	Administrator				
	Educational Specialist				
	Family				

Objectives Completed: *1, 2, 3* Objectives *NOT* Completed: *4, 5*

Objective No. _____ Revised: New No. _____

Comments:

sure that each sheet is completely filled out — statement of objectives that will be dealt with during the monitoring interval, completion of Planned Program section at the beginning of the monitoring interval, completion of Actual Program section at the end of the monitoring interval, indication of what objectives were met and what objectives were not met.

In addition to general procedures, there are some individual instructor procedures which should be followed if this monitoring system is to provide relevant feedback. The procedures are listed in sequential order.

Individual Instructor Procedures

Step 1. Prepare interim behavioral objectives in a sequential order of accomplishment as they relate to the overall performance objective(s). These objectives should include the six criteria described on pages 1 and 2. The only difference between interim objectives and the overall performance objective is that there will be a shorter time interval and the situation under which the behavior will be observed will be more specific.

Step 2. Select those objectives that will be considered for the given monitoring period.

Step 3. Complete the Planned Program as it relates to the accomplishment of the objectives identified in Step 2 above.

Step 4. At the end of the monitoring interval, complete the Actual Program section and indicate which objectives were completed and which objectives were not completed.

Step 5. Recycle by selecting the next objective(s) as identified in Step 1 above and complete the Planned Program section on the next monitoring sheet.

Step 6. Continue process.

Summary

The final activity in bringing about accountability is the preparation of a final report that will be made public. With the information and data collected with a monitoring system as described above, this final report will be very objective in that it will be able to show the relation between the level of attainment of objectives and the implemented instructional program, using valid and reliable information. This effort would satisfy many public demands for accountability in education because the educators will now be able to say what they are doing to educate children and how well they are doing it.

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